

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference VALS 940 B PCT	FOR FURTHER ACTION See Form PCT/IPC/A/416	
International application No. PCT/FR2004/002006	International filing date (day/month/year) 27.07.2004	Priority date (day/month/year) 08.08.2003
International Patent Classification (IPC) or national classification and IPC B05B1/34		
Applicant VALOIS SAS		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 7 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a. ☐ (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:

☐ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

<input checked="" type="checkbox"/>	Box No. I	Basis of the report
<input type="checkbox"/>	Box No. II	Priority
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/>	Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/>	Box No. VI	Certain documents cited
<input type="checkbox"/>	Box No. VII	Certain defects in the international application
<input type="checkbox"/>	Box No. VIII	Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

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International application No.

PCT/FR2004/002906

Box No. 1

Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item:
- ☐ This report is based on translations from the original language into the following language _____ which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-5 _____ as originally filed/furnished
- pages? _____ received by this Authority on _____
- pages? _____ received by this Authority on _____
- ☒ the claims:
- nos. _____ as originally filed/furnished
- nos. _____ as amended (together with any statement) under Article 19
- nos. 1-10 _____ received by this Authority on 10.06.2005 with letter
- nos. _____ received by this Authority on of 08.06.2005
- ☒ the drawings:
- sheets 1/2, 2/2 _____ as originally filed/furnished
- sheets? _____ received by this Authority on _____
- sheets? _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (specify): _____
- ☐ any table(s) related to sequence listing (specify): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (specify): _____
- ☐ any table(s) related to sequence listing (specify): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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International application No

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement		
1	Statement		
	Novelty (N)	Claims 3, 4, 6, 7	YES
		Claims 1, 2, 5, 8-10	NO
	Inventive step (IS)	Claims	YES
		Claims 1-10	NO
	Industrial applicability (IA)	Claims 1-10	YES
		Claims	NO
2	Citations and explanations (Rule 70.7)		
1.	<p>Reference is made to the following documents:</p> <p>D1: US 3 625 437 A (GARRIGOU GERARD CLAUDE) 7 December 1971</p> <p>D2: US 4 923 448 A (ENNIS, III ET AL) May 1990</p> <p>D3: FR 1 355 350 A (GREEN EDWARD H) 13 March 1964</p> <p>D4: EP 0 412 524 A (TOKO YAKUHIIN KOGYO KK) 13 February 1991</p> <p>D5: EP 0 499 690 A (ELETTRO PLASTICA S.P.A) 26 August 1992</p> <p>D6: FR-A-2 821 573 (VERBENA CORP N V) 5 September 2002</p>		
2.	<p>D1 (see passages cited in the international search report) describes (the references between parentheses apply to said document):</p> <p>a spray head (2) for fluid, comprising a discharge channel (formed inside the head 2) provided with a spray port (14) and a spray profile made in the bottom wall of said spray head; said spray profile comprises spray channels (17), preferably non-radial, opening into a central spray chamber (16) located directly upstream of said spray port (14); an insert (8) is placed in said discharge channel (5) to form the bottom of said spray profile (10); the central axis of said insert (8) is substantially identical to the central axis of said discharge channel; said spray</p>		

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
	<p>head (2) comprises centring means (19) for centring said insert (8); said discharge channel (formed inside the head 2) comprises said centring means (19) for centring said insert (8); and said centring means (19) are formed adjacent to the spray profile.</p> <p>2.1 INDEPENDENT CLAIM 1</p> <p>The fact that the spray head of D1 (reference (2) in D1) is described as an "insert", and that the insert (reference (8) in D1) is referred to therein as a "cylindrical pin" does not in any way prevent said elements from being considered to correspond to the respective definitions of a spray head and an insert. The applicant's attention is also drawn to the fact that the elements (19) effectively perform the function of centring the insert (8) relative to the head (2) (see, in particular, column 2, lines 52 to 57; column 4, lines 15 to 28).</p> <p>The centring means (19) described in D1 extend to the plane of the spray profile and are therefore effectively formed adjacent to the spray profile.</p> <p>Consequently, D1 describes in combination all the features defined in independent claim 1. The subject matter of said claim does not meet the PCT requirements of novelty (PCT Article 33(2)).</p> <p>2.2 DEPENDENT CLAIMS</p> <p>The dependent claims contain no features which, when combined with the features of any one of the claims to which they refer, meet the PCT requirements of novelty (PCT Article 33(2)), for the following reasons:</p> <p>2.2.1 Claim 2</p> <p>The elements (19) are effectively projections, of which there are four, and the diameter of the imaginary circle described by said projections (on</p>

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surface 15) is substantially identical to the diameter of the insert (8) (see column 3, lines 61 to 64)).

The variant of claim 2, in which there are three projections, is novel. However, it is not inventive, as providing three projections is merely one of several obvious options that a person skilled in the art seeking to centre the insert in the head might select, depending on each particular case, and without an inventive step being involved (see for example D2, D3, D5).

2.2.2 Claim 5

Claim 5 attempts to define said subject matter by the result to be achieved (obtaining eccentricity less than 0.08 mm, preferably less than 0.03 mm), yet this merely amounts to stating the basic problem the invention is intended to solve, without providing the technical features required to achieve this result. Since the features of claim 5 do not add technical differences that enable the subject matter of said claim to be clearly differentiated from the prior art (see D1), the subject matter of claim 5 fails to meet the PCT requirements of novelty (PCT Article 33(2)).

The applicant's attention is also drawn to the fact that the tolerance of ± 0.05 mm mentioned in D1 (column 3, lines 61 to 64) appears to have the consequence of a maximum eccentricity of 0.025 mm (instance where the insert having diameter D is floating within an inscribed diameter of $D+0.05$ mm).

2.2.3 Claim 8,

In what follows, the expression of claim 8 "are made according to" has been taken to mean "are consistent with".

A set of heads according to the wording of claim 8 is described in D1, column 4, lines 23 to 28.

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PCT/FR2004/002066

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2.2.4 Claim 9

Claim 9 attempts to define the subject matter for which protection is sought by the result to be achieved, yet this merely amounts to stating the problem the invention is intended to solve, without providing the technical features required to achieve this result.

Since the features of claim 9 do not add technical differences that enable the subject matter of said claim to be clearly differentiated from the prior art (see D1), the subject matter of claim 9 fails to meet the PCT requirements of novelty (PCT Article 33(2)).

2.2.5 Claim 10

The spray head of D1 belongs to a dispensing device.

2.3 DEPENDENT CLAIMS 3, 4, 6, 7

Said claims contain no features which, when combined with the features of any one of the claims to which they refer, meet the PCT requirements of inventive step (PCT Article 33(3)).

2.3.1 Claim 3

The fact that the three projections are flat-shaped and symmetrically distributed is merely one of several obvious options that a person skilled in the art seeking to centre the insert in the head might select, depending on each particular case, and without an inventive step being involved (see for example D2, figure 3, 4 or D5, figure 3).

2.3.2 Claim 4

D1, which is considered to be the closest prior art, describes a spray head from which the one forming the subject matter of claim 4 differs in that the accesses from the discharge channel to the spray channels are formed between said projections.

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The problem that the present invention is intended to solve can be considered to be that of preventing one of the accesses from being closed by the insert during assembly of the latter.

According to the description provided in D1 (see page 5, right-hand column, last paragraph, to page 6, left-hand column, first paragraph; figure 7), the distribution of the tangential channels between the flats has the same advantages as those mentioned in the present application. Consequently, the inclusion of this feature in the spray head described in D1 is a routine design measure for a person skilled in the art seeking to solve the stated problem.

The solution proposed in claim 4 of the present application is therefore considered not to meet the PCT requirements of inventive step (PCT Article 33(3)).

2.3.3 Claims 6 & 7

The features of the diameter of the spray chamber and/or the spray port mentioned in said claims are merely some of several obvious options (see D4, column 5, lines 8 to 11; D6, page 7, line 24) that a person skilled in the art seeking to obtain a spray of good quality might select, depending on each particular case, and without an inventive step being involved.